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Source: *Harvard Journal of Asiatic Studies*, Vol. 2, No. 3/4 (Dec., 1937), pp. 291-328

Published by: [Harvard-Yenching Institute](#)

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# THE CIRCULATION OF SILVER IN THE MOSLEM EAST DOWN TO THE MONGOL EPOCH

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Shortly before the year 1000 A. D. a remarkable, omnipresent shortage of silver affected the Mahometan world. Within a brief space of time it practically ceased to be coined at all in the majority of the Islamic states and fractional currency in base metals<sup>1</sup> took its place alongside of the gold dinars, which continued to circulate.<sup>2</sup> A scant three centuries later (about 1260) silver suddenly reappears in vast quantities, and within a generation is reestablished as a medium of currency over almost the whole area whence it previously had so mysteriously vanished.<sup>3</sup>

No little speculation has been devoted by numismatists and some by economic historians to interpreting these peculiar phe-

<sup>1</sup> This fractional currency was stamped upon irregularly shaped pieces of base metal (iron or copper, or sometimes apparently a mixture of the two). See plates 3-6 in V. LANGLOIS, *Essai de classification des suites monétaires de la Georgie depuis l'antiquité jusqu'à nos jours* (Paris, 1860). On Mohammedan coins in general cf. Ch. M. FRAEHN, *Recensio numorum Muhammedanorum Academiae Imperialis Scientiarum Petropolitanae*, Petropoli, MDCCCXXVI, and Stanley LANE-POOLE, *Catalogue of the Oriental Coins in the British Museum*, 10 vols., London, 1875-83.

<sup>2</sup> Theoretically 1 dinār = 10 dirhems = 1 νόμισμα or bezant. Actually the number of dirhems reckoned in the dinār varied considerably, though writers on legal subjects held stubbornly to the ideal norm. See A. von KREMER, Ueber das Einnahmebudget des abbassiden Reiches von Jahre 306 H (918/91): in *Denkschriften der kaiserlichen Akademie der Wissenschaften* 1887 (Bd. 36), pp. 1-82, and also his *Culturgeschichte des Orients unter den Chalifen*, 2 vols., Vienna 1875-77. Much material from Arabic sources is available in translation in the book of H. SAUVAIRE (see below, Note 18). A summary of Kremer's discussion is given by J. B. BURY, *History of the Eastern Roman Empire* (London, 1912), p. 236-237.

<sup>3</sup> Coinage of the aspers at Trebizond began according to O. von RETOWSKI about 1236 (*Die Münzen der Komnenen von Trapezunt*, Moscow, 1910; also in Russian in the Нумизматический Сборникъ Московскаго нумизматическаго общества I (1911), pp. 113-301, pls. I-XV). Cypriote *blancs* were really *bisanti bianchi d'oro*, as Pegolotti says. Coinage in Cyprus of this type antedates the Trapezuntine currency, having been begun under Hugues I: G. L. SCHLUMBERGER, *Numismatique de l'orient latin*, Paris 1878, p. 175.

nomena.<sup>4</sup> Various reasons have been advanced in explanation, but their mainspring has been ascribed to political and governmental changes, while economic causes have been relegated to the background. In the course of a series of investigations into the circulation of the precious metals in the Near East during the middle ages the writer was constrained to consider the question anew, and came to the conclusion that previous investigators had not adequately explained what took place, and that some of the explanations advanced conflicted with fundamental principles of economic theory. The quest has led him far afield, and into not a few areas remote from his bourne, but the kindly assistance of friends and colleagues has enabled him at least to check what the sources say, and to form his own ideas of their significance.<sup>5</sup>

For centuries the peasants of the North Russian steppes and the inhabitants of the shores of the Baltic have found in their fields and on their river banks hoards of coins, sometimes alone, sometimes accompanied by jewelry and trinkets.<sup>6</sup> Some 'finds' contain tens of thousands of coins, and in one instance at least over nine hundred-weight of precious metal was recovered from one spot.<sup>7</sup> So frequent have such discoveries been that they have passed into a proverb, neatly phrased by the Russian author, P. Yershov: <sup>8</sup>

Но давно ужъ рѣчь ведется,  
Что лишь дурнямъ кладъ дается.

<sup>4</sup> The older literature is summarized by W. HEYD, *Histoire du commerce au Levant au moyen âge* (traduit par Furcy Reynaud), Leipzig, 1883, t. 1, p. 57 ff. See also A. SCHAUPE, *Handelsgeschichte der romanischen Völker des Mittelmeergebiets bis zum Ende der Kreuzzüge*, München/Berlin, 1906, pp. 15 ff.

<sup>5</sup> The author wishes to acknowledge with gratitude aid lavishly given by his colleagues, Professor S. Elisséeff, Dr. Hideo Kishimoto and Dr. C. S. Gardner, on Japanese and Chinese texts. Professor J. A. Schumpeter has repeatedly gone over the economic problems which are involved. Other indebtedness is mentioned incidentally in the course of the article.

<sup>6</sup> This paper is concerned only with the hoards which contain Moslem coins, either wholly or in part.

<sup>7</sup> See A. Márkov in the book cited below (note 10), p. 105. The find was made at Cuerdale in Lancashire, England, but others of similar dimensions have come to light in Russia, e. g., No. 9—100 lbs; No. 28—11,100 coins; No. 172—"a whole keg of money"; No. 203—216/252 lbs. of money.

<sup>8</sup> In his poem *Конёкъ Горбунокъ*, "The Little Humpbacked Horse."

“ But long since the tale goes round  
Only a fool a hoard has found.”

These coin deposits testify to the volume and activity of the commerce carried on between the heathen tribes of North Europe and their more civilized neighbors on the south and east. In the main the larger hoards do not come from the barrows (курганы), which yield merely scattering specimens, but are found buried in barrels, sacks, and especially in earthenware vessels. Our information about these finds does not in the main antedate the 18th century, and the data concerning them in many cases are most inadequate. Their total number, however, is so considerable that, if local variations in content are slightly discounted, we obtain a remarkably clear picture of the types of coins current in divers areas, and of the relative frequency of their occurrence.

The older literature (till 1883) is summarized by Heyd,<sup>9</sup> but his data are antiquated since the publication of the exhaustive work of the Russian numismatist A. Márkov.<sup>10</sup> Márkov deals only with the hoards which contain Moslem coins; he likewise includes in his survey the Sassanid pieces, which were excluded from the earlier studies, but occur in restricted quantities in the deposits. In his introduction he points out that the older theory that because silver was hoarded in the north it consequently disappeared from circulation in Moslem areas, does not hold water. Economic causes explain it, as Arabic coins cease to appear in the hoards just when the Arab dynasts stopped coining silver. Furthermore, even though the quantity of silver hoarded in the north were very considerable, it does not suffice to explain why silver disappeared, not only from the Moslem marches, but also from the entire Mahometan east.<sup>11</sup>

Before we discuss the fundamental economic reasons which underlie this phenomenon, it seems desirable to summarize the

<sup>9</sup> HEYD, *l. c.*, I, p. 57 ff.

<sup>10</sup> А. Марковъ, *Топографія кладовъ восточныхъ монетъ (сассанидскихъ и куфическихъ)* С. Петербургъ 1910 г. Markov has gathered and sifted the available information about the finds. His work comprises not only material previously printed, but a large amount of hitherto unpublished data gleaned from the archives of the Russian Archaeological Commission.

<sup>11</sup> Márkov, *l. c.*, p. ii-iii.

data afforded by the coin hoards, especially with regard to the Moslem coins. The area where these deposits are found in some density (scattered coins have been found in most sections of Russia) is in general the watershed of the Volga, the head-waters of the Don and the Dnieper, along the Volkhvá and Nevá, the coasts of the Baltic, the islands in this sea, and South Sweden. Southern Norway is the western limit, nor do they run far north of the Volga. The Ukraine has yielded but very little, and the deposits on the southern shore of the Baltic consist for the most part of pieces of western origin, with but a scattering percentage of Mahometan currency.<sup>12</sup>

Many of the Moslem coins found are broken up into halves or even smaller pieces. While we know that this habit was not uncommon in the west,<sup>13</sup> specific statements found in Moslem sources indicate that this method of providing small change was characteristic of Turkestan.<sup>14</sup> The absence of gold coins is also a noteworthy phenomenon. It is known that gold did not pass current in the steppes, and the fact that so many silver pieces were not melted down shows how active the trade must have been. Practically no Byzantine coins are found in the north, though they figure heavily in the deposits of the Ukraine.

A chronological analysis of the hoards shows that the larger ones contain a few Sassanid pieces.<sup>15</sup> The coins of the khalifate steadily increase in proportion, barring a sudden rise between 796

<sup>12</sup> This Russian numismatist Savel'iev apparently published a topographical map of the coin deposits (see HEYD, *l. c.*, I, p. 57, note 2), but this has not been accessible to me. I suspect from Dorn's note in CH. M. FRAEHNII, *Nova Supplementa ad Recensionem numorum Mohammedanorum Academiae Imp. Sci. Petropolitanae additamenti editoris aucta subjunctis eiusdem de Fraehnii vita operibus impressis et bibliotheca relationibus*, edidit Bernh. Dorn, Petropoli MDCCCLV, p. 415 ff., no. 103, that this may have been issued in one of the Russian translations of FRAEHN's *Topographische Uebersicht der Ausgrabungen von altem Gelde in Russland*, *Bulletin scientifique de l'académie* 9 (1811), p. 301 ff. This was translated into Russian by SAVEL'IEV and published in the periodical *Сынъ Отечества*, 1842 Июль, отд. IV, pp. 57-100, and also in his *Мухаммеданская Нумисматика*, pp. 1-52. The western limit of these deposits in Northern Europe is Egersund in the province of Christiansand, Norway. The northern limit in Russia is a line drawn from Kazán' to Lake Ládoga.

<sup>13</sup> So, for example, the farthing.

<sup>14</sup> On this see Ibn Hauqal ed. OUSELEY, p. 258.

<sup>15</sup> Apparently no definite regional distribution of Sassanid coins can be established: see MÁRKOV, *l. c.*, pp. i-ii.

and 814 in the reign of Harūn al-Rashīd, as we approach the 10th century. Provincial mints predominate, especially those of Turkestan, Khorassan and Azerbaijan, and also those of Armenia. The greatest mass, however, belong to the Sāmānids of Turkestan, especially to the period between 909 and 955 A.D.;<sup>16</sup> from 955 on the coins are merely scattering. After 975 there is a sharp break, and the latest coin found is of 1012 A.D.<sup>17</sup> According to Makrizī, no silver was coined at Baghdad in 1009 and for some years afterwards.<sup>18</sup> The coinage of the various Mahometan dynasts also begins to be struck from base metals at this period.<sup>19</sup>

Properly to interpret these phenomena, we must review in some detail the economic development of the northeastern provinces of the khalifate, particularly Turkestan.

The Sassanid kingdom never obtained full control over the valley of the Oxus and Jaxartes, nor over the provinces of Sogdiana and Transoxania. Until the fall of the Hephthalite kingdom (ca. 550 A.D.) these areas, densely populated and relatively highly cultivated, had remained under control of peoples of Iranian descent. With the establishment of the first Turkish khanate (565 A.D.) political control in these areas passed forever to races of non-Iranian stock. The Iranian tongue, however, still persists in the dialect of the Sarts.<sup>20</sup> Iranian culture survived, transmitted through a Mahometan milieu, but Iranian hegemony was lost forever.<sup>21</sup>

<sup>16</sup> See the summary in HEYD, *l.c.*, I, pp. 58/9; it would appear that two-thirds of the coins discovered belong to the Sāmānid dynasty, but this proportion tends to increase if anything when Márkov's new materials are taken into account.

<sup>17</sup> At Viborg in Finland: MÁRKOV, *l.c.*, p. 59, no. 10 (*ibid.* no. 6—coin of 1009).

<sup>18</sup> Makrizī ed. A. DE SACY, *Chrestomathie Arabe* I, p. 250: quoted in de Sacy's translation by H. SAUVAIRE, *Matériaux pour servir à l'histoire de la numismatique et de la métrologie musulmane* I (Paris 1882), p. 334.

<sup>19</sup> See note 1 above, p. 291.

<sup>20</sup> This word, even before the Mongol period, came to mean merchant, and hence town dweller, in Turkish (see BARTHOLD, *s.v.* Sart in *Encyclopaedia of Islam*, 4<sup>1</sup>, pp. 174/6; *eiusdem*, *s.v.* Tadjik, *l.c.*, 4<sup>1</sup>, pp. 598/9). The word is an Indian expression meaning 'merchant' (BARTHOLD, *l.c.*, p. 45). The parallel with the *κάρηλοι* in Herodotus (1, 94) is striking. The dialect of the present Sarts is called Tājikī and differs only slightly from modern Persian (BARTHOLD, *loc. cit.*; *Grundr. der Iran. Philol.* I, 2, pp. 407 ff.).

<sup>21</sup> The sole book which synthesizes the history of this area in a clear and coherent

The first Arab invasions (probably shortly after 648 A.D.) encountered a relatively high level of material civilization in the cities of western Turkestan.<sup>22</sup> Hither, for example, had come paper from China,<sup>23</sup> whose use spread through the Moslem world after the conquest of Samarkand, while the cultural currents flowing eastward to China have left indelible philological traces in the Iranian loan words in Chinese, which have been so fascinatingly illustrated by the late B. Laufer.<sup>24</sup>

We can form some conception of that civilization from the remains, literary and artistic, which the desert wastes of eastern or Chinese Turkestan have yielded during the past generation, where English, French, German and Russian scholars have uncovered extraordinary monuments.<sup>25</sup> Some information is also afforded by incidental remarks of the Arab historians in their accounts of the conquest. Most of the original writers, however, have not come down to us and we have at best excerpts in the later compilers, Ṭabarī and Ibn-al-'Athīr.<sup>26</sup> As we approach the

manner is W. BARTHOLD, *Turkestan down to the Mongol Invasion*, 2nd ed., tr. by H. A. R. GIBB (E. J. W. Gibb Memorial Series, N. S., Vol. V), London, 1928. See also GIBB, *The Arab Invasions of Turkestan*, London, 1923. Some important additional data, new viewpoints and emendations are to be found in W. BARTHOLD, *12 Vorlesungen über die Geschichte der Türken Mittelasiens*, Deutsche Bearbeitung von Theodor MENZEL (Beiband zu *Die Welt des Islams*, Bd. 14/17), Berlin, 1935.

<sup>22</sup> Excellent sketch of the Arabic sources in BARTHOLD, *l. c.*, pp. 1-37.

<sup>23</sup> BARTHOLD, *l. c.*, p. 9, no. 2. The quality of this paper was excellent. Specimens secured by Stein from Tun-huang have been examined by an English expert, R. H. Clapperton, and highly praised: *Paper: An Historical Account*, Oxford, 1934. A specimen bearing the date 506 is described by him as very thin and tough bank-like paper, pale buff, smooth both sides, thick, .002-.0025 in., crisp and transparent, very close laid lines, c. 24 or 26/in., from fine grasses or bamboo strips, chain lines c. 1/2 in. apart, fine and straight. Ramie. Another of 561: "thin golden yellow paper . . . thickness .002-.0025 in. A really beautiful thin paper, very well made. The fibres have been well beaten and the sheet is well closed. Very even laid and chain lines, all square and rigid looking, no sagging; 16 to the inch and chain lines two inches apart. The paper is tough, transparent and strong, and very evenly made. As good a paper as could be made at the present time. Close, smooth surface, excellent handle and rattle. Very hard-sized: takes and holds ink as well as a good modern tub-sized paper. Composition: Paper mulberry and Ramie." Quoted by Lionel GILES in *BSOS* 7 (1935), pp. 814-15, and 827. The first specimen is 22 3/4 ft. long, the second 29 ft.

<sup>24</sup> B. LAUFER in his *Sino-Iranica* (Chicago, 1919).

<sup>25</sup> A. v. LE COQ, *Buried Cities of Chinese Turkestan*, London, 1926.

<sup>26</sup> BARTHOLD, *Turkestan*, pp. 2-3.

Mongol epoch, complete texts dealing with local historical events become more frequent.

In the middle of the seventh century the dominant political rôle appears to have been played by the khans of the west Turkish kingdom, but local affairs seem to have been controlled by the provincial aristocracies (*dihqāns*).<sup>27</sup> It would appear that this expression denoted in Sogdiana at least not the mass or lower orders of the feudal aristocracy, as it did in Persia, but referred to the greater feudal lords, who oftentimes had control over extensive estates.<sup>28</sup> In addition to the *dihqāns* we find a prosperous and wealthy class of merchants, city dwellers though living in fortified castles.<sup>29</sup> Analogies with the situation in Sassanid Persia probably justify us in assuming that this class was not wholly derived from the local population, but included among other elements a considerable body of 'Syrians.'<sup>30</sup> Just as the Aramaic speaking population of Syria and Mesopotamia filtered westward into the remotest provinces of the Roman Empire, so their kindred travelled eastward over mountain and desert until they reached the outskirts of China.<sup>31</sup>

The centralized governmental bureaucracy of the Sassanids was unknown in Turkestan, as was also the state-supported hierarchic cult of Zoroaster. Manicheans and Christians, Buddhists and

<sup>27</sup> See A. CHRISTENSEN, *Iran sous les Sassanides* (Copenhagen, 1936), p. 107, for a description of the *dihqāns* (pehlevi *dēhkānān*) and the political and social rôle which they played under Sassanid rule.

<sup>28</sup> BARTHOLD, *Turkestan*, pp. 180/81.

<sup>29</sup> See E. STEIN, *Jahrb. für mittel- und neugriechische Philologie* I (1920), pp. 50/89.

<sup>30</sup> Barthold (*op. cit.*, p. 181) points out that these merchants were probably nobles, as no sign of any friction between the two groups can be discerned.

<sup>31</sup> A good deal of information on this topic is contained in the book of J. LABOURT, *Le christianisme dans l'empire perse sous la dynastie sassanide (224-632)*, 2<sup>e</sup> ed., Paris, 1904. The author does not, however, bring out the economic rôle of the Aramaic-speaking population as clearly as he might. G. HOFFMAN's monograph, *Auszüge aus der Märtyraken syrischer Märtyrer, Abhandlungen zu der Kunde des Morgenlandes*, III, Leipzig, 1875, is still important. Further incidental data on this subject are contained in the important new book of A. Christensen (see note 27), pp. 121 ff. An interesting reflex of this commercial activity is contained in a curious Armenian hagiographical text found by the writer in Cod. 173 of the Armenian Convent of St. James at Jerusalem: it has been prepared for publication by his pupil, Mr. Joseph Skinner. The text concerns the lives of Markha and Kospar who were caravan drivers in Khorassan, and has clearly been translated from a Syriac original.

Shamanists lived together under the tolerant rule of nomadic princes with perhaps an occasional quarrel. The population was brave and warlike, but any cohesion or unity of purpose was wholly lacking. No leader save a foreign tyrant existed around whom they could rally.

Trade had developed to considerable dimensions in this area. The import of silk during the middle of the sixth century had become a major problem, both for the Sassanids and for Byzantium.<sup>32</sup> The spread of Iranian culture to areas further eastward appears to have followed in the main, and to have been connected with, the commercial routes which penetrated these districts. No doubt this was the case with the Iranian alphabet (BARTHOLD, *12V*, p. 17); clearly this happened with the Iranian loan-words in Chinese, most of which appear to have an Aršakid rather than a Pehlevi complexion. Archaeological remains from the Minussinsk area—once the habitat of the Kirghiz and richest in archaeological remains of any section of Siberia—show early commercial intercourse with Iran (BARTHOLD, *12V*, pp. 27-28). Manichaean colonies sprang up along the routes, and Christian colonies were also founded there (cf. P. PELLLOT, *JA*, 1916, p. 111 ff.; *eiusdem*, *TP*, 1914, p. 629 ff).<sup>33</sup> These connections reached their culminat-

<sup>32</sup> A. HERRMANN, *Die alten Seidenstrassen zwischen China und Syrien. Aus dem zweiten Buche des Ssê-ma-Ts'ien und der Annalen der Han-Dynastie*. Diss. Göttingen, 1911 = *Quellen und Forschungen zur alten Geschichte und Geographie*, herausgegeben von W. Sieglin, Heft 21. Cf. E. STEIN, *Untersuchungen zur byzantinischen Geschichte vornehmlich unter den Kaisern Justinus II und Tiberius Constantinus* (Stuttgart, 1919), pp. 18-21, and H. H. SCHAEDEER, *Iranica*, in *Abhandlungen der Gesellschaft der Wissenschaften zu Göttingen, phil.-hist. Klasse, Dritte Folge*, No. 10 (1934), pp. 41-43.

<sup>33</sup> MOULE, A. C., *Christians in China before the year 1550*, pp. xvi, 293, London, 1930. A Nestorian stele, which bears a date corresponding with Sunday, Feb. 4, 781, and which was discovered in 1625 near the capital of the then-reigning Chinese dynasty, tells nearly all that is known of the introduction of that form of Christianity. A certain A-lo-pên 阿羅本 who is specifically stated to have come from the land of Ta-ch'in 大秦 (Syria according to Pelliot) came to Ch'ang-an 長安 the capital, in 635. An imperial decree three years later accorded toleration and provided for construction of a Ta-ch'in monastery. The succeeding emperor (Kao-tsung 高宗 650-683), according to the inscription, "founded brilliant monasteries in every one of the departments (*chou* 州) [prefectures might be better]. And further he promoted A-lo-pên to be Great Spiritual Lord, Protector of the Empire. The religion was spread over the provinces and the kingdoms were enriched with vast prosperity, monasteries occupied every city and the families enjoyed brilliant happiness" [Doubt-

ing point at the very end of the Sassanid period: "Persien besass in der Epoche der Sassaniden die Herrschaft über die Wege des Land- und Seewelthandels, wobei das Sassanidenreich auch in dieser wie in allen anderen Beziehungen den höchsten Glanz am Vorabends seines Sturzes erreichte" (BARTHOLD, *12V*, p. 43).<sup>34</sup>

The coin deposits of North Russia show that trade down the Oxus and Jaxartes and through the Turgai steppe with the forest regions of western Siberia and the upper Volga basin had already begun under the later Sassanids, though its volume at first could not have been very great. Caravan trade eastward over the relatively easy pass between Andijan and Kashgar had existed for centuries,<sup>35</sup> and waxed and waned according to the ups and downs of the struggle between the Chinese emperors and the nomads of the Gobi Desert. The instability of the general political situation tended to make commerce along this road rather risky and to diminish its importance for occidental kingdoms in comparison with the longer but surer sea-route.

The Arab invasion met with comparatively little organized resistance. The Moslems were able to utilize the internecine rivalries of the local population, and turned one faction against the other. The centre of the west Turkish kingdom lay far away from Sogdiana in eastern Turkestan and in Semirechye. Arab power was, therefore, relatively easily established in Sogdiana, but less securely in Transoxania; Ferghana was never more than an outlying march. On the other hand the Arabs did control both

less some exaggeration]. Further fortunes until the date of the inscription. Some difficulties are suggested 698-9 and 713, but accent is on prosperity. Arrival of A-lo-pên in 635 is confirmed by final note to Gloria found by Pelliot at Tun Huang. Abridged text of decree of 638 speaks of A-lo-pên as "Persian monk." This is drawn from the *T'ang hui yao* 唐會要, a work presented to the emperor on Jan. 31, 961, but based, for the period in question, on an earlier work, 804, of the same title, by Su Mien 蘇冕. Persecution 845, more than 3000 Ta-ch'in and Mu-hu-fu (Zoroastrians) secularized.

<sup>34</sup> In the eighth century Mohammedan caravans came to Kirghiz territory, as we hear from Chinese and Arab sources. Chinese documents speak of the presence of Mohammedan merchants in Mongolia in 924 (BRETSCHNEIDER, *Mediaeval Researches*, I, 265) but we have practically no information at this time about Mongolia from western sources (BARTHOLD, *12V*, p. 46).

<sup>35</sup> On the early trade in this area see BARTHOLD, *Turkestan*, p. 65.

the Oxus and the Jaxartes throughout their entire course and consequently secured direct connections with the northern markets.

As in other non-Semitic areas, so the Arabs in Turkestan systematically established military colonies in the larger cities, and built up complexes of estates held by the government or by those closely associated with it. Religion, as the Moslems advanced in this area, played even less of a rôle than it did in Persia and Armenia. The governors who ruled the district had to struggle against continual revolts, and were anxious for the most part only to fill their pockets and retire. Islam made considerable strides among the conquered population, and a numerous body of Iranians were thus absorbed in Mahometan culture. It is quite striking how many names in Arab science and literature hail from this area. It was from this district likewise that the revolt started which led to the enthronement of the Abbassid dynasty at Baghdad in the year 751 A. D. It coincided with the dislocation of the east Turkish khanate, partly as a result of internal dissension and partly through Chinese pressure.

Not long before the end of the eighth century A. D., a series of changes were introduced into the currency media circulating in Turkestan which were of major importance in the economic history of this area. While our sources give quite a little detail about the new coins which were introduced, the explanations they advance in motivating the change are somewhat confused, and do not square with the postulates of economic theory. The chief source of our information is the Persian historian Nerchakhy (Naršāhī), and through the kindness of my friend, Professor H. A. R. Gibb of the School of Oriental Studies in the University of London, I am enabled to quote here a literal translation of the pages in question: <sup>36</sup>

“The first person to strike silver coins in Bukhārā was a king called Kānā Bukhār Khudāt کانا بخار خدادت who reigned

<sup>36</sup> The author Abu-Bakr Muḥammad b. Jaʿfar an-Narshākhī (d. 959) wrote his *History of Bukhārā* in Arabic. The original has not come down to us, but we have an abridgement in Persian, originally made by Qubāwī in the 13th century and later revised by Muḥammad b. Ḍufar. The text was published by Ch. Schefer at Paris in 1892, and was translated into Russian by N. Lykoshin (Tashkent, 1897). See BARTHOLD, *l. c.*, pp. 13-15.

over Bukhārā for 30 years. The merchants of Bukhārā who were engaged in the cotton and grain trade<sup>37</sup> informed him that silver coins had been struck in other countries. Accordingly he commanded that coins stamped with his head and crown should be struck in unalloyed silver in Bukhārā also. This happened during the Caliphate of Abū Bakr aṣ-Ṣiddīq. Afterwards, in the time of Hārūn ar-Rashīd,<sup>38</sup> in the month of Ramaḍān in the year 185, Ghiṭrīf b. ‘Ata<sup>39</sup> became amīr of Khurāsān. This Ghiṭrīf was the brother of the mother of Hārūn ar-Rashīd, whose name was Khaizurān. . . . At that time the silver coins of Khwārizm circulated amongst the people, but the people took them unwillingly. That Bukhārān silver coinage [above-mentioned] had disappeared from men’s hands. When Ghiṭrīf b. ‘Atā came to Khurāsān, the nobles and notables of Bukhārā brought a petition to him saying that they had no silver coin left in the town, and requesting the amīr of Khurāsān to command that silver coins should be struck for them with the same die as the ancient silver coins of Bukhārā, and that it should be such a currency that no one would take it from their hands nor export it from their city, so that the inhabitants could trade with it amongst themselves. At that time the price of silver was high. Accordingly the inhabitants were summoned and asked their opinion in the matter. They agreed to strike coins composed of six substances,—gold, silver, musk, lead,<sup>40</sup> iron and copper. They did so, and struck coins with that old die with the name of Ghiṭrīf, hence they were called Ghiṭrīfī and, by the common people, ghidrīfī. The old coins had been made of pure silver, [but] these coins which had been alloyed turned out black. The people of Bukhārā refused to accept them. The government being angry, they took them, albeit unwillingly.<sup>41</sup> Their rate was fixed at six ghidrīfis to one

<sup>37</sup> ЛУКОШИН: Въ его время въ Бухарѣ въ торговлѣ счетъ велся на бумажныя матеріи и по пшеницу: ему сообщили. . . .

<sup>38</sup> ЛУКОШИН: Такъ продолжалось до царствованія [which is clearly wrong].

<sup>39</sup> غطريف بن عطا

<sup>40</sup> Text مشک و ارزنيو. ЛУКОШИН: “leather and tin”; BARTHOLD: “lead and tin (?)”. tin (?)”

<sup>41</sup> ЛУКОШИН: если же принимали, то только по принужденію правительства.

dirhem's weight of unalloyed silver, and the government accepted them at this valuation. Afterwards this coinage became current, and it was due to this that the land-tax at Bukhārā became burdensome. In ancient times the land-tax of Bukhārā had been rather less than 200,000 silver dirhems. When ghidrifī dirhems were struck and were current at six for a dirhem's weight of pure silver, the government made ghidrifīs compulsory upon them [in payment of taxes] at that rate. But when the ghidrifī became dear and reached the point that a ghidrifī dirhem was equal in currency to a silver dirhem, and the government asked for silver and for ghidrifīs [equally],<sup>42</sup> the land-tax of Bukhārā from rather less than 200,000 silver dirhems suddenly increased to 1,060,000 dirhems and 8,567 ghidrifīs (*sic*).<sup>43</sup> Muḥammad b. Ja'far states that in a certain year 220 dirhems of pure silver<sup>44</sup> were worth 85 ghidrifī dirhems. Aḥmad b. Naṣr writes that in the year 22 [i. e. 522], when we [i. e. he] translated this book, a hundred dirhems of pure silver were worth seventy ghidrifī dirhems, and in law a mithqāl was worth seven and a half ghidrifī dirhems. Muḥammad b. Ja'far relates that these ghidrifīs were struck at the Castle of Māhak (كوشك ماخك) in the town of Bukhārā. The silver in the ghidrifī dirhem was more than the other alloys. It is said that in every dirhem there was a little gold, amounting in every ten dirhems to the weight of between one-half and three-quarters of a dirhem [weight]. In Bukhārā a large number of small coins were struck; each of the Sāmānids struck coins, and other rulers after the Sāmānids; no account is given of this coinage since there was nothing remarkable in it."

From the account in Nerchakhy<sup>45</sup> it is obvious that the pre-Arab silver coins, which appear to have been struck by some

<sup>42</sup> i. e., "took silver at the same rate as ghidrifīs."

<sup>43</sup> Barthold (p. 204) emends to 1,168,567 ghidrifī dirhems.

<sup>44</sup> So the text, but something is certainly dropped and it should read: "In the year 220 X dirhems of pure silver." According to Barthold (*l. c.*) the missing word is صان "a hundred."

<sup>45</sup> Attention was first called to this passage by P. LERCH in his article in the *Travaux de la 3<sup>e</sup> session du congrès internationale des orientalistes* (à St. Pétersbourg, 1876),

ruler in Bukhārā (khūda = crown; arm. khoyr: cf. HÜBSCHMANN, *AG*, 1, 2, p. 160; HORN, *Grundriss der iranischen Philologie*, 1, 2, pp. 44, 66), continued to circulate for a century and a half under the sway of the Arabs. It is a reasonable assumption that along with these were intermingled some Sassanid coins (especially those of Chosrōes Parvīz: see SAUVAIRE, *Matériaux*, I, p. 10). As trade to the north developed, it passed through Khwārizm. It is clear from the statement of Nerchakhy that Khwārizmian coins circulated in Turkestan in the eighth century, which implies, economically speaking, that the purchasing power of silver in Bukhārā was higher than that of Khwārizm. These coins were minted in that area, as no provincial coinages of a special type were struck until after the early Abbassids.<sup>46</sup> It also postulates a commercial dominance of Khwārizm as compared with Turkestan. The older coinage of pre-Arab days had now disappeared from the market, and it is evident that causes, both general and local, were drawing off currency from the Bukhārā market; presumably it was drained off to Khwārizm.<sup>47</sup>

The request to mint a new type of coinage came from the nobles and notables. In this latter group we can include, I think, the upper strata of the merchant class. Two points were made clear in the request:

1. The coinage should be struck on the old dies, which presumably implies that the aim was to keep the coins in circulation in the commercial sphere of the district.

2. It should be of a type which would not be exported. This indicates a desire to invite trade and at the same time to keep down the high cost of living, which was clearly high in Bukhārā

2 vv. St. Pétersbourg, 1879-80, v. II, pp. 419-429, entitled "Sur les monnaies des Boukhār-Khoudahs ou princes de Boukhara avant la conquête du Maversinahr par les Arabes."

<sup>46</sup> H. SAUVAIRE has given a cento of information from Arabic sources on the first coinages of the Arabs, *Matériaux pour servir à l'histoire de la numismatique et la métrologie musulmanes*. 1 série, Paris, 1882, pp. 34 ff.

<sup>47</sup> H. SAUVAIRE, *l. c.*, I, pp. 99-100, quotes el-Moqqadasy (Maqdisī): "On raconte que les anciens habitants de Khawārezm ont fait le dirham de 4 daneqs afin que les marchands ne l'exportassent pas. Jusqu'à ce jour, en effet, on y importe l'argent et on ne l'exporte pas."

as contrasted with neighboring districts. This phenomenon appears sporadically in different districts of the khalifate during the ninth century, and a number of instances in other provinces are listed by SAUVAIRE (*Matériaux*, 1, 125). The inhabitants (i. e., merchants and shopkeepers) agreed to a currency composed of an alloy of six metals.

The actual formula of the alloy does not appear from the text, which seems to be corrupt, but it is obvious that it was no mere base alloy, having a noble metal content of about 66 per cent.<sup>48</sup> This would imply a debasement with respect to the old silver coinage of about  $33\frac{1}{3}$  per cent if both silver and gold content are taken into account. It likewise would appear that this figure is the same discount applied, according to Maqdisī, to the silver dirhem in the Turkestan markets about the year 910, when it was reckoned as containing 4.3 دانیق *dāniqs* in place of the normal six.<sup>49</sup>

The price of silver in the Bukhārā market fell speedily upon the introduction of this currency and made it possible for the taxes to be paid in silver. The advantage herein to the government officials arose from the fact that collections could be sent direct to Baghdad without intermediate exchange operations. This phenomenon implies an increase in trade activity at Bukhārā which enhanced the value of local currency as compared to silver brought from outside. It is not quite clear whether the black ghitrīfīs continued to be struck after the Sāmānid dynasty came to the throne, but they continued to circulate under the Sāmānid sway.

The ghitrīfīs were not the only type of alloy currency in circulation in the Turkestan-Khorassan area. We hear of two other types, the musayyabī (SAUVAIRE, 1, 224, 191), and the muḥam-

<sup>48</sup> The text might be differently interpreted. Either the silver was over 50 per cent of the total, or else it was twice the amount of any of the other metals. If gold varied between five and seven per cent of the total, the proportions would be  $5 + 4x + y = 100$ , where  $y = 2x$ :  $\therefore x = 15$  per cent and  $y = 30/35$  per cent. This latter calculation would make the bullion content about 40 per cent as compared to the older coins.

<sup>49</sup> A danīq was four carats. From various statements derived from Arabic sources and quoted by SAUVAIRE (*Matériaux* I, 34 ff.) it appears that the actual silver content of the dirhems issued by the central mints was about 70 per cent of its nominal value.

madī dirhems (SAUVAIRE, 1, 217/8, 191), each of which had a locally restricted circulation.<sup>50</sup> The second type was current especially in Farghana and Sogd, while the former circulated on the edge of Khorassan, in Shāsh, Ilāq and Khojend. Our sources are specific in stating that the circulation was restricted. Exchange against copper *fals* and Baghdad silver dirhems is mentioned, but no rates or ratios are given by our sources.

The fact that we have local currencies of a special type circulating in three definite economic areas shows that the innovation was one dependent on general economic conditions.

The ghitrīfī was favored at the start by the governmental regulations inasmuch as: 1. It was issued at a relatively low rate of face value (6 : 1 of the old dirhems) ; 2. taxes were payable in it, and fixed in terms of the new circulating medium. Therefore, in accordance with economic theory, the purchasing value of the old dirhems fell, which was equivalent to debasing the purchasing price of silver in the Bukhārā area, and would accordingly lead to an increase in the value of the new currency, *i. e.*, to increased purchasing power. The tendency, provided the issue of new coinage were kept, as it appears to have been, within the bounds demanded by the turn-over in the province, would consequently be: 1. To export silver; 2. to decrease silver's purchasing power; 3. granted an increase in the commercial activity in the area, to increase the purchasing power of the new currency.

This conjunction appears to have occurred at the time the Sāmānid dynasty came into power (862). The connection between Bukhārā and Baghdād had been growing fairly tenuous, and it was to the interest of the new dynasty to favor a local currency, but with the increase of commercial activity, we find them reestablishing a silver currency of the regular type for foreign consumption. The exchange against Baghdad could not have been high, as the purchase price of silver was falling as against ghitrīfī. Taxes had been levied at six ghitrīfīs to one dirhem, but not reduced when the ratio altered: taxes under the Samanids were low, hence the country had become more prosperous. In the

<sup>50</sup> On these coins see W. BARTHOLD, *Turkestan*, pp. 205-6.

early tenth century silver flowed to Turkestan, not away from it, as we learn from Maqdisī.

Although the Abbassid dynasty ruled for five centuries (751-1258), its appearance definitely marks the point where signs of dislocation became evident throughout the far-flung lands of the khalifate. Under the specious uniformity of the Moslem domains, other entities, political, racial and economic, began to emerge. Wellhausen rightly makes the Arab state *per se* end in the year 751. Iranian influences made themselves felt under the new dynasty, and submerged races elsewhere, mustered under the banners of Islamic culture, gave a new impetus and direction to its various manifestations.

From Spain to Turkestan the outlying provinces gradually formed independent units or agglomerations of principalities under dynasties, vassals at first and later *de jure* or *de facto* independent. The material prosperity of these districts increased in consequence to a very considerable extent. Before the Arab conquest Turkestan had been divided from the Iranian plateau by a frontier, not infrequently hostile. Thereafter commerce and trade with Iran and with the northern districts were almost uninterrupted. The vast amount of specialized manufacture characteristic of Iran during the tenth century is portrayed in vivid colors in the collections of material from the geographers made by P. Schwarz. The brocades and carpets, the velvets and cashmeres of Persia have their counterparts in the cotton cloths and muslins of Bukhārā and Samarkand, which we know were exported in large quantities to Iraq, while from the northern markets vast quantities of furs, wax, honey, amber and other products of the forest area came up the Oxus and the Jaxartes to the bazars of Turkestan. The most detailed account of the trade in Turkestan at this period is contained in the Arab geographer Maqdisī (*Bib. Arab. Geogr.* III, 323-6: BARTHOLD, *Turkestan*, 235-6).<sup>51</sup>

“As regards merchandise the following was exported: from Tirmidh, soap and asafoetida: from Bukhārā, soft fabrics, prayer-carpet, woven fabrics for covering the floors of inns,

<sup>51</sup> Cotton cloth exported from Wadhār to Irāq (BARTHOLD, *Turkestan*, p. 95).

copper lamps, Ṭabarī tissues, horse-girths (which are woven in places of detention), Ushmūnī fabrics, grease, sheepskins, oil for anointing the head; from Karmīniya, napkins; from Dabūsiya and Wadhār, Wadhārī fabrics, which are dyed in one color. I have heard that one of the sultāns of Baghdād called them the satin of Khurāsān. From Rabinjān, winter cloaks of red felt, prayer-carpets, pewter ware, skins, strong hemp and sulphur; from Khorezmia sables, miniver, ermines, and the fur of steppe foxes, martens, foxes, beavers, spotted hares and goats; also wax arrows, birch-bark, high fur caps, fish glue, fish teeth (walrus), castoreum, amber, prepared horse hides, honey, hazelnuts, falcons, swords, armour, khalānj wood (birchwood: LAUFER, *Sino-Iranica*, pp. 552-3), Slavonic slaves, sheep and cattle. All these came from Bulghār, but Khorezmia exported also grapes, many raisins, almond pastry, sesame, fabrics of striped cloth, carpets, blanket cloth, satin for royal gifts, coverings of mulham fabric, locks, Arānj fabrics, bows which only the strongest could bend, rakhbīn (a kind of cheese), yeast, fish, boats (the latter also exported from Tirmidh). From Samarqand is exported silver-colored fabrics (sīmgūn), and Samarqandī stuffs, large copper vessels, artistic goblets, tents, stirrups, bridle-heads and straps; from Dīzak, fine kinds of wool and woolen clothes; from Banākath, Turkistān fabrics; from Shāsh, high saddles of horsehide, quivers, tents, hides (imported from the Turks and tanned), cloaks, praying carpets, leather capes, linseed, fine bows, needles of poor quality, cotton for export to the Turks, and scissors; from Samarqand again, satin which is exported to the Turks and red fabrics known by the name of mumarjal, Sīnīzī cloth, many silks and silken fabrics, hazel and other nuts; from Farghānā and Isfījāb, Turkish slaves, white fabrics, arms, swords, copper, iron; from Tarāz (Talas) goatskins; from Shalji, silver; from Turkistān, horses and mules are driven to those places, and also from Khuttal. There is nothing to equal the meats of Bukhārā, and a kind of melon they have called ash-shāq (or ash-shāf), nor the bows of Khorezmia, the porcelain of Shāsh, and the paper of Samarqand."

The new states which gradually formed out of the Abbāssid domains in western Asia, the Buyids in Khorassan, the Saffarids in Iran, the Samanids in Turkestan, the Ghaznevids in Afghanistan, all represent natural geographical entities<sup>52</sup> and are all colored to a certain extent by the influence of Iranian culture. The complicated history of these principalities has been magnificently set forth by W. Barthold,<sup>53</sup> and the main lines of their growth and decline are now relatively clear. The Samanids bulk largest in the history of commerce (862-999). The impetus which gave rise to the foundation of this dynasty appears to have arisen because the local population were dissatisfied with the Abbassid governors. They continued to rule through the support of public opinion, by carefully developing commerce with outside lands. As we pointed out above,<sup>54</sup> more than 80 per cent of all Moslem coins found in European Russia were minted by the Samanids during the period 862-975, a fact which eloquently testifies to the volume and intensity of the commerce between the Volga and Turkestan. The descriptions given by the geographers of the 10th century, especially Maqdisī,<sup>55</sup> show clearly what prosperity was enjoyed by Turkestan and Khwarizm at this period. Some data are also extant which prove that commercial intercourse eastward was also active at this period, but the evidence is likewise incontrovertible that the eastern trade was far less important than the circulation along the northern artery.

The goods derived from the north and brought to the bazaars of Turkestan in the main are luxury articles. There is no evidence that the basic products of Russia were shipped to central Asia, as we know they were to Constantinople. The merchants of Turkestan presumably purchased these goods for silver and only to a lesser extent they exported in return manufactured luxuries of the east. The accumulations of Moslem silver in North Russia are relatively greater than those of Byzantine silver in the south. The retention of this silver and also the fact that almost no coins are found dating after 1000 A. D. shows that the cessation of the

<sup>52</sup> See BARTHOLD, *Turkestan*, p. 339.

<sup>53</sup> See above, pp. 295-296, note 21.

<sup>54</sup> See above, pp. 294-295.

<sup>55</sup> Quoted above, pp. 306-307.

trade is due to factors operating at the centre of export and not in the area into which it was imported.

This fact, when taken in conjunction with a series of political events in central Asia, explains why Arab silver ceased to be exported to the north and northwest, and why at the same time the coinage of silver suddenly ceased in the Mohammedan east. Samanid currency was minted from silver derived from the celebrated mines of the Zarafshān valley, which still produce the metal at the present day. What evidence we possess goes to show that the silver mines on the Iranian plateau were relatively unproductive at this period. The Arabs had lost control over the argentiferous section of Armenia during the latter half of the ninth century.<sup>56</sup> It is, therefore, a reasonable inference that the silver supply of the Abbassid domains in the tenth century was in large measure derived from Turkestan. During the latter part of the tenth century, the Varangian state at Kiev was expanding eastward through the steppe and under Olég the Khazar state between the Don and the Volga was conquered. At the same time disturbances among the steppe nomads led to the devastation of the Bulgar kingdom on the Volga, which was the mart to which products were brought from the north and whence they were shipped to Turkestan through the Turgai steppe. The interruption of commerce thus brought about retained the silver already exported from Central Asia at the centres of production, *i. e.*, in northern Russia.

This alone would not have been sufficient to cause the break-up of commerce between northern Russia and central Asia, had it not been for a second group of factors which simultaneously became active in Turkestan. The Samanid dynasty was tottering to its fall through internal decay and because of Turkish infiltration, to which point we will return below. It lost control of the Zarafshān mines about 975 A.D.,<sup>57</sup> and a generation later the dynasty fell before the attacks of the Qārā-Khānids and of the energetic and unscrupulous ruler of Ghazna, Mahmud.<sup>58</sup> Soon the

<sup>56</sup> See J. LAURENT, *L'Arménie entre Byzance et l'Islam depuis la conquête arabe jusqu'en 886*, Paris, 1919, p. 241 ff.

<sup>57</sup> See BARTHOLD, *Turkestan*, 165, 171/2.

<sup>58</sup> *Op. cit.*, 268.

latter started his campaigns in the direction of India, which led to the conquest of the Punjab by the Moslems. The huge booty gathered during these campaigns was lavished on unproductive luxury and buildings, while his home provinces were ground into the dust by merciless taxation.<sup>59</sup> The natural tendency then was for silver to be drawn off from Turkestan and exported to India. Inasmuch, however, as the source of silver in Turkestan had dried up, silver was drained off all the Mahometan east as well as from Iran. At the same time the Seljuk Turks were founding their power in Khorassan and extending it westward into Iran and Anatolia.<sup>60</sup> The economic results of this movement led to shifting governmental centres further westward and consequently drew off from Turkestan such silver as was in circulation.

In those areas, however, where both gold and silver circulated, gold was not drained off, but in order to supply the need for fractional currency, we find an epidemic of brass and iron tokens with a *Zwangskurs*. The Byzantine empire was not affected by this phenomenon, owing to its balanced trade with the north.

The Samanids were overthrown by their mercenary armies, which in large measure were composed of Turks. The dynasties which succeeded them were Turkish also. This westerly drift of Turkish tribes, either by migration through the steppes to the north or by infiltration through Iran into Armenia and Iraq, is one of the outstanding phenomena of the tenth century. The Samanids had been the last of the local dynasties which attempted to base their policy upon an understanding with the land-holding class out of which the governmental bureaucracy was built up. For self-protection they had to have on foot large bodies of troops and ultimately fell between the two stools.

The generation after the overthrow of the Samanids saw the Seljuks establish themselves in Khorassan. They then spread rapidly westward almost to the walls of Constantinople and south-

<sup>59</sup> *Op. cit.*, 287 ff. It is noteworthy, however, that Byzantine silver coins of the 10th century are much less frequent than the gold ones, and those in mint state are notoriously rare.

<sup>60</sup> *Op. cit.*, 305 ff. Nizām al-Mulk (*Siassetnameh* (text, p. 95 = translation, pp. 139-40) describes the rise of a Turkish slave at the Samanid court. Similar conditions held true undoubtedly at Baghdād.

ward to Antioch and Damascus. The foundation of the Seljuk state and of that of their rivals, the Qārā-Khānids, in Transoxania, brought definitely in its train the ruin of the old territorial aristocracy. The Seljuk monarchs were intelligent barbarians with the vices and virtues of the nomad.<sup>61</sup> The actual rule of their territories was conducted by natives of the conquered provinces, of whom the best example is Nizam-ul-Mulk, the vizier of Melik-Shah.<sup>62</sup> He systematically put into effect the system of military fiefs ('*iqṭā'*)<sup>63</sup> which remained characteristic thereafter of the Turkish states and to some extent likewise of the Mongol domains. The Turks thus became a warrior caste ruling over a conquered population.

The Seljuk domains were too far-flung and heterogeneous to remain an integrated unit. Within a century we find that their power in Turkestan had become practically extinct. During the 12th century two other dynasties grew up to dispute their heritage, the Khwarizm-Shahs and the Qara Khitai. Both of these royal families and their supporters were predominantly Turkish. The Khwarizm-Shahs, operating from the isolated and fertile area around their capital, Gurganj, near the sea of Aral, extended their power southwards over Samarkand and Bukhārā and later in large measure over Sogd and Khorassan. They were successful in their struggle against the Qara Khitai largely because of more intelligent leadership and greater persistence. By utilizing internecine quarrels among their foes, the third of the line, Mohammed Khwarizm-Shah, was able to unite under his sway all Turkestan and Khorassan and the major portion of Persia, thus becoming undisputedly the most powerful Mahometan monarch of his day. This mighty fabric, however, was based on insecure foundations and reposed wholly on the allegiance of a mercenary army, brave enough, but undisciplined. The Shah's personal security was always in peril through the jealousy and hatred of his conquered

<sup>61</sup> Idrisī (quoted by BARTHOLD, *Turkestan*, p. 305) says of the Turks: "Their princes are warlike, provident, firm, just and are distinguished by excellent qualities; the nation is cruel, wild, coarse and ignorant."

<sup>62</sup> See Edw. G. BROWNE, *A Literary History of Persia*, II (1906), pp. 212 ff. BARTHOLD, *Turkestan*, p. 305 ff.

<sup>63</sup> Discussion of the rôle of the '*iqṭā'*' by BARTHOLD, *Turkestan*, p. 307.

subordinate princes, but his nemesis arose in the Mongols whose power was growing up under Jinghiz-Khan.

This state appears in large measure to have been the creation of one man. The Mongols at this period were wholly uncivilized. Only under Jinghiz was their language reduced to writing, utilizing the script of the Uigurs, and the organization of their state was carried out by the aid of foreign advisers, Uigurs, Mahometans and Chinese. The Mongols were unconquerable for two reasons. Jinghiz himself was a consummate strategist with a marvellous gift of picking able men. The formation of the state marked a victory of the aristocracy, and iron discipline was imposed upon the rank and file.<sup>64</sup> Outstanding leadership and thoroughly reliable troops, combined with the craftiness and unscrupulousness of the nomad, made the new Huns an irresistible foe. Before Jinghiz's death he ruled over an empire extending from the Caspian to Corea, from the tundras to Teheran, and from the Lena to Lhasa.

This is not the place to examine the structure and organization of this state. We merely wish to dwell on such points as affected the commercial policy of the Mongols. First of all, savages though they were, the Mongols for centuries had been accustomed to trade and commerce; in fact their very existence depended upon it, as they exchanged the products of the steppes, of their flocks and herds, for grain and textiles from China or from Turkestan.<sup>65</sup> We have had occasion to refer more than once in the preceding narrative to the caravan trade which passed through Chinese Turkestan and the Gobi desert to China.<sup>66</sup> At this period it was for the most part in the hands of Mahometan merchants. The

<sup>64</sup> The rise of Jinghiz-Khan marks a victory of the aristocratic element among the Mongol tribes: see BARTHOLD, *12V*, p. 12, who draws an interesting parallel between this historical drama and the development of the Turkish state under the early khanate. On the rise of Jinghiz in particular see Barthold's article in the *Записки Восточнаго отдѣленія Имп. Россійскаго археологическаго Общества*. Т. X (1896), pp. 105 ff.

<sup>65</sup> The important item for the Mongols when trading with Turkestan was primarily textiles (BARTHOLD, *12V*, p. 71). The initiative, moreover, remained with them, as they needed the materials more than the settled peoples.

<sup>66</sup> See above, pp. 298-299.

first foreigners at the court of Jinghiz of whose presence we learn are Mahometans.<sup>67</sup>

Though the Mongols had never ruled over peoples who lived in towns and villages, we observe in their case, just as in that of the Turks,<sup>68</sup> that they were quick to grasp the essential elements of organized government, ready to accept any suggestions which were pertinent, and willing to carry through bold projects. A scheme of administration was drawn up for newly-conquered China. It is evidently based on the experience of the earlier Chinese dynasties, which was intelligently exploited by Ögödäi and his advisers, who put through a series of financial measures for parallels to which we hunt vainly in Western European history until the middle of the 19th century.<sup>69</sup> These centred around the bank-notes or *balysh*, familiar to western readers in mediaeval and modern times from the tales of travellers to the Orient.<sup>70</sup> The phenomena which we have already noted in the west are merely the distant repercussions of Mongol financial measures in China.

The Mongol *balysh* has a long antecedent history in China, and some account of previous monetary developments in that country must be given here. This question has attracted much attention on the part of sinologists and economists alike. The relevant literature is widely scattered, often published in inaccessible periodicals, and is most unequal in value.<sup>71</sup>

Until the first years of the T'ang dynasty the circulation of coined

<sup>67</sup> Mahometan Merchants at Jinghiz's Court: BARTHOLD, *12V*, p. 158.

<sup>68</sup> See above, p. 311.

<sup>69</sup> It should be noted that in the main the originality in the ideas is in large measure derived from the antecedent experience of the Chinese rulers, if we look at the enactments as measures governing the circulation of the precious metals in China proper. Unquestionably, however, the Mongols had in view other motives, and primary among them was the need of obtaining revenues from China. Granting that the measures were a combination of previous experience and sound judgment, we cannot deny that the nomads furnished the second element.

<sup>70</sup> The word *balish* (*balysh*) is met with frequently in our sources. The ms. of Pegolotti (EVANS, p. 23) reads *palisci*, for which the editor rightly gives *balisci*: Pagnini's *babisci* is a copyist's error. In our oriental sources we find the form *بلیش* or *بلیشت* *balish* or *balisht*: on this word see YULE, *Cathay and the Way Thither* 4 (1916), pp. 112-113.

<sup>71</sup> Paper first began to circulate under the T'ang dynasty (618-907) in the form of bills of exchange, and we find recurrent emissions of it in the ensuing period. Most

money in China appears to have been confined to copper currency or cash. For the first time after the year 650 A. D. and at recurrent intervals during the later history of this dynasty, we find the government issuing paper currency. The issuance generally tends to coincide with periods of storm and stress. This procedure is repeated under subsequent families of rulers down to the Mongol epoch. A number of details are given by the appropriate dynastic histories, but under the Mongols we also glean a considerable amount of additional information from western sources.

Gold and silver were not current as a medium of exchange un-

of the passages relating to the time antedating the Mongol régime are collected from the various annals and translated by G. VISSERING (*On Chinese Currency*, Leiden, 1877).

The Chinese material on the subject in the Mongol period is almost wholly derived from various sections of the *Yüan Shih*, or Mongol dynastic history, particularly chapters 93-97, which deal with the dynasty's internal administrative policy. Part of the data from the *Yüan Shih* concerning the first two issues under the dynasty were translated by G. PAUTHIER, *Le livre de Marc Pol*, Paris, 1865, vol. 1, pp. 319-322 (in the notes). Some pertinent details are afforded by the biography of the Öngüt statesman Yeh-lü Ch'u-ts'ai, summarized in part by Abel Rémusat over a hundred years ago (*Yüan Shih*, ch. 146), in *Nouvelles Mélanges Asiatiques* (Paris 1829), II, pp. 64-88, especially pp. 76 ff. The latest discussions of the problems have been by I. ARITAKA (*Shirin* 1, no. 3 (1916), pp. 480 ff.), and by Shegiru KATŌ (*Tōhō Gakuhō*, Tōkyō (1936), vol. 6, pp. 73-80). Dr. Kishimoto and Professor S. G. Elisséeff have made the content of these investigations accessible to the writer. The western sources deal with the Chinese currency in the Mongol epoch only, and touch on some aspects which are passed over in the Chinese materials. In addition to Marco Polo (most conveniently accessible in English in H. Yule's translation revised by H. Cordier, *The Book of Sir Marco Polo*, New York 1903, vol. 1, pp. 423-430: here too is a bibliography of the older literature from Klaproth down), Pegolotti and Ibn-Baṭūṭā treat of the matter in some detail (translation and commentary by YULE in *Cathay and the Way Thither*, 3 (1913), 143-171; 4 (1916), 108-145: the Italian text of Pegolotti is now available in the critical edition of Allan EVANS, Cambridge, 1936. A good many original currency notes of the Ming period (1368-1644) have survived, and their number has been greatly increased by discoveries after the sack of Peking in 1901. Those of the earlier period are much less frequent, and our knowledge of them is largely derived from descriptions of specimens preserved in various private collections in China. From a source of this nature, in the main, are derived the examples published by Andrew McFarlane DAVIS in his two articles (Certain Old Chinese Notes, *Proceedings of the American Academy of Arts and Sciences*, vol. 50, no. 11, June, 1915, and Ancient Chinese Paper Money as described in a Chinese work on Numismatics, *ibid.*, vol. 53, no. 7, June, 1918). The Chinese work is called *Chüan Pu T'ung chih* and was written at Peking in 1826-33. The translation of the superscriptions on the notes and of the text is by K. Tomita. Data in a work of this type are far from being wholly reliable, and the probability that most of the early specimens are forgeries is quite considerable.

der the T'ang dynasty and were not regularly circulated under the Sung.<sup>72</sup> The government repeatedly took specific measures against the circulation of the precious metals within China proper. China even now still produces a considerable quantity of silver, for the most part from the northern area and from the western province of Szechwan. This silver appears to have been used in ancient times primarily for the purpose of paying tribute, when necessary, to the nomad tribes of the western desert, and also to purchase goods imported from the west and north through the agency of these same nomad tribes. As we have seen above, all the steppe area from the Carpathians to the Altai was on a silver basis.<sup>73</sup> The silver was not coined, but passed current in the form of small bars.<sup>74</sup> Our information on the notes of the Mongol

<sup>72</sup> The general problem of currency circulation in China under the T'ang and Sung dynasties has been elaborately treated by the Japanese scholar Shigeru KATŌ (Tōyō-Bunkō 1925-26, vol. 6<sup>1-2</sup>) under the title, "Researches into the Precious Metals in the T'ang and Sung Dynasties Centered on their Monetary Function: *Tōsō Jidai ni okeru kingin no kenkyū tadashi sono kahei teki kinō wo chūshin to shite* 加藤繁, 唐宋時代に於ける金銀の研究但し其の貨幣的機能を中心として It is accompanied by an English summary which is rather inadequate. A conspectus of the parts relevant to my own investigations was made for me by my friend, Dr. Hideo Kishimoto. Katō in this work does not go into detail about the Mongol epoch. See the review of this book by H. MASPERO, JA 212 (1928), pp. 170-172. In his later article in the Tōhō-Gakuhō Katō has made a special study of the meanings of the words employed under the Sung dynasty for various types of notes. In the main these reduce to three—*chiao-tzū*, *hui-tzū*, and *kuan-tzū*. The *chiao-tzū*, he finds, were a type of promissory note or draft, issued by the government to officials for travelling expenses. In the confused conditions of the epoch, various local currencies had made their appearance in different provinces. These *chiao-tzū* were cashable at the government offices in the various districts. The Northern Sung Dynasty (960-1126 A. D.) introduced the term *hui-tzū*, and from certain passages which he quotes we can see that the significance of this term is practically the same as that of the *chiao-tzū* of the earlier epoch. They are mentioned as having been issued in payment for lead and tin. The expression was not solely used in this sense, however, but is also employed for a covering document (possibly bill of lading) accompanying goods shipped. The *kuan-tzū* appears to have been a certificate of deposit of goods, made by private individuals at governmental depots, but the same word is also employed in the sense of a *laissez-passer* for goods passing through the customs house.

Katō's conclusion is that the words mean substantially the same, implying an obligation to pay on the part of the government, but that they were not exclusively used in this sense during the Sung period.

<sup>73</sup> See above, p. 294.

<sup>74</sup> These are the *somī*, about which Pegolotti goes into detail (EVANS, p. 25), small bars or ingots of silver, about the size and shape of a woman's index finger. On these

period contains some evidence which has hitherto seemed contradictory. The Chinese sources speak for the most part about issues of notes which from their nature can only be termed state notes or fiat money. The surviving notes which have come down from the Mongol period, or representations of them, obviously all belong to this type. Our western sources, however, make it perfectly clear that the notes of which they speak were obtainable in exchange for silver at the frontier and were redeemable in the same medium on departure from the country and also for certain specific purposes within it.<sup>75</sup> The solution of this dilemma is given, I think, if we examine more carefully precisely what the Mongol annals say.

Hitherto non-Sinologists have had to rely on the translation of G. PAUTHIER, given in his edition of Marco Polo (*Le Livre de Marc Pol*, vol. I, pp. 318-322, Paris 1865). A careful perusal of this text showed that certain statements in it did not agree with the findings of Katō and especially with those of Aritaka, in a number of vital instances, which led the writer to suspect that Pauthier's rendering of certain passages was inaccurate. Dr. C. S. Gardner has kindly made a new English translation, which shows that the previous doubts were amply justified. It is given

see YULE, *Cathay and the Way Thither*, III, pp. 148-149. The word is an interesting one, and was widely disseminated in the oriental languages. We find it in Greek, in the interesting annotations published by V. N. BÉNÉŠÉVIČ (Синагога въ 50 титуловъ и другіе юридическіе сборники Іоанна Схоластика. Записки Классическаго отдѣленія Императорскаго Россійскаго археологическаго общества, 1914 (Томъ VIII), pp. 167-168, and also in Georgian. The Georgian lexicographer Saba Sulkhan Orbeliani quotes the word (საბა სულხან ორბელიანი ქართული ლექსიკონი ed. I. Qip'sidze and A. Šanidze, Tiflis 1928, p. 321 = ed. R. Erist'avi, Tiflis 1884, p. 286), where he says სომი ხუთი აბაზი: 'a somi is five abaz' (5 x 20¢ = \$1.00). In Ossete *som* (сом) means a ruble. Ibn Batūtā (ed. Defrémery et Sanguinetti, Paris 1867, vol. 2, p. 412) gives the word in the form سوم, a plural of صوم.

The word *somi* implies a certain weight in silver. The etymological explanations hitherto given are unsatisfactory: the obvious derivation the writer received many years ago from the late V. A. ŽUKOVSKI (through his brother-in-law N. Y. Marr). Žukovski pointed out that in certain loan words in Turkish an original *i* was unlauted to *ö*: the word consequently was nothing but the Persian سیم (Syriac ܣܝܡ) *sim* (*simā*) *silver*.

<sup>75</sup> Particularly Marco Polo and Pegolotti.

here in extenso along with the Chinese text. Attention is called in the notes to certain sections where Pauthier's rendering is erroneous or misleading.

TRANSLATION FROM THE *Yüan shih* 元史, STANDARD *History of the Mongol Dynasty*, CH. 93, 20B<sup>1</sup>-21B<sup>8</sup> (T'UNG WEN BOOK CO. PHOTO-FACSIMILE OF 1739 PALACE ED.).

#### EMISSION OF PAPER CURRENCY

鈔始于唐之飛錢、宋之交會、金之交鈔。其法以物爲母、鈔爲子、子母相權而行、卽周官質劑之意也。

The origin of paper currency is to be found in the *Fei ch'ien* "flying money" orders of the T'ang, in the *chiao hui* exchange notes of the Sung, and in the *chiao ch'ao* bills of exchange of the Chin. The principle involved is the use of real property as security ("mother") and of notes as its representative ("son"), the paper and reserve standing in proper relation to each other: that is the idea of the *chih tzü* tally mentioned in the [ancient] "Officials of the Chou."

元初倣唐、宋、金之法、有行用鈔、其制無文籍可攷。世祖、中統元年、始造交鈔、以絲爲本、每銀五十兩、易絲鈔一千兩。諸物之直、並從絲例。

The Mongols at the outset, imitating the procedure of the T'ang, Sung, and Chin, placed bills in circulation; but the records are lacking which might permit investigation of their regulation.<sup>76</sup> The first year [1260] of the Chung-tung reign of Shih-tsu [Khubilai], an initial issue of bills of exchange employed silk as security. Each fifty ounces of silver was exchangeable for silk bills representing one thousand ounces. The valuation of all other commodities likewise followed the silk rate.

<sup>76</sup> Pauthier omits the sentence: "but the records are lacking which might permit investigation of their regulation." The consequent implication of the passage in his

是年十月、又造中統元寶鈔、其文以十計者四：曰、一十文、二十文、三十文、五十文；以百計者三：曰、一百文、二百文、五百文；以貫計者二：曰、一貫文、二貫文。每一貫同交鈔一兩、兩貫同白銀一兩。又以文綾織爲中統銀貨、其等有五：曰、一兩、二兩、三兩、五兩、十兩。每一兩同白銀一兩、而銀貨蓋未及行云。

This year in the tenth month [Nov. 5-Dec. 3, 1260] were also issued *Chung-t'ung Yüan pao ch'ao*, precious notes of the Chung-t'ung period of Mongol rule. Their denominations included four multiples of ten entitled: 10, 20, 30, and 50 cash; three multiples of one hundred<sup>77</sup> entitled: 100, 200, and 500 cash; two multiples of a string [of one thousand], entitled: 1 and 2 strings of cash. Each string was equivalent to one ounce [of silver] in bills of exchange; two strings were equivalent to one ounce of white [metallic] silver. Figured damask was also used to make *Chung-t'ung yin huo*, silver certificates of the Chung-t'ung period, in five denominations entitled: 1, 2, 3, 5, and 10 ounces, each one-ounce certificate equivalent to one ounce of white silver; but it is said that the silver certificates probably never actually entered circulation.

version was that the first issue of Mongol bills took place in 1260. It was clear, however, from the data given in the biography of Yeh-lü Ch'u-ts'ai that some provisional issues must have been made during the earlier period, but the documents bearing upon this may well not have been translated into Chinese and in any event were not available in the archives to the later compilers of the *Yüan Shih*. Pauthier considers that the rate indicated here is disproportionate, as he apparently takes (in the phrase "silk bills representing one thousand ounces") the word *thousand* to refer to the nominal value in silver of the silk bills. It is clear, however, that this was the nominal value in silk, from which we can infer that the cost of silk was 20 oz. of silk to 1 oz. of silver. This is not very far removed from the rates given by Pegolotti (ed. EVANS, p. 23): E ragionasi che al Gattaio arai da libbre 19 in 20 di Seta gattaia recato a peso di Genova per un sommo d'argento, che puote pesare da once 8½ di Genova ed è di lega d'once 11 e danari 17 per libbra.

<sup>77</sup> Pauthier took this phrase as meaning 'hundredths,' and omitted the second of the series. The context makes it obvious that the chronicler is moving in crescendo—tens, hundreds and thousands.

五年、設各路平準庫、主平物價、使相依準、不至低昂、仍給鈔一萬二千錠以爲鈔本。至元十二年、添造釐鈔、其例有三：曰、二文、三文、五文。初鈔印用木爲板。十三年、鑄銅易之。十五年、以釐鈔不便於民 復命罷印。

The fifth year [1264] stabilization treasuries were established in each circuit<sup>78</sup> to control and equalize commodity prices, maintaining a proper balance between them so that they should be neither too high nor too low. They were further given bills to the value of 12,000 *ting* [120,000 oz.] to serve as note reserves. The twelfth year [1275] of the Chih-yüan period there were issued in addition *li ch'ao*, fractional bills of three values, entitled: 2, 3, and 5 cash. For the initial issues of bills, wood was employed to make printing-blocks, but in the thirteenth year [1276] copper was cast to replace them. The fifteenth year [1278], because the fractional bills were not convenient for the public, fresh orders were issued to stop printing them.

然元寶 交鈔行之既久、物重鈔輕。二十四年、遂改造至元鈔、自二貫至五文、凡十有一等、與中統鈔通行。每一貫文、當中統鈔五貫文。依中統之初、隨路設立官庫、貿易金銀、平準鈔法。每花銀一兩入

On the other hand, the Mongol precious bills of exchange had already been long in circulation and had become depreciated in terms of goods. The twenty-fourth year [1287] accordingly, *Chih-yüan ch'ao*, bills of the Chih-yüan period, were issued in their stead, altogether eleven denominations from 2 strings to 5 cash. These were ex-

<sup>78</sup> Pauthier says "La cinquième année on établit en chaque lóu des *Trésoreries* ou bureaux officiels dont les chefs avaient pour fonctions d'égaliser la valeur des objets de consommation ou de commerce et de faire concorder entre eux les prix de ces mêmes objets avec la valeur donnée en échange, sans qu'ils aient pu parvenir (à arrêter) l'avilissement (de cette monnaie fictive) et l'élévation (du prix des objets de consommation). En conséquence de cet état de choses, on n'émit du papier-monnaie que pour une somme de 12,000 *ting* en valeur primitive de cette monnaie." Pauthier did not grasp the fact that what the government did was to establish a reserve whose purpose was to stabilize commodity prices. Aritaka understood the text correctly.

庫、其價至元鈔二貫；出庫、二貫五分。赤金一兩入庫、二十貫；出庫、二十貫五百文。偽造鈔者處死、首告者賞鈔五錠、仍以犯人家產給之、其法爲最善。

至大二年、武宗復以物重鈔輕、改造至大銀鈔、自二兩至二釐、定爲一十三等。每一兩準至元鈔五貫；白銀一兩；赤金一錢。元之鈔法、至是蓋三變矣。

changeable with the Chung-t'ung notes at the rate of one string of cash [in new bills] for five strings in Chung-t'ung bills.<sup>79</sup> Following the precedent of the beginning of the Chung-t'ung period, official treasuries were established in the various circuits for conversion of gold and silver, to stabilize the valuation of the bills. Each ounce of refined silver entering a treasury should be valued at two strings in *Chih-yüan* bills; if paid out from a treasury, at two strings and five hundredths [2,050 cash].<sup>80</sup> One ounce of ruddy gold entering a treasury [should be exchanged for] twenty strings; paid out, at twenty strings, five hundred cash [20,500 cash]. Counterfeiters of these bills should be decapitated. First informers should be rewarded with five *ting* [50 oz.] in bills, and should further be given the criminal's family property. The dispositions [governing this emission] were excellent.

The second year [1309] of the Chih-ta period the Emperor Wu-tsung, in view of depreciation of the bills in terms of goods again effected a conversion by issuance of *Chih-Ta yin ch'ao*, Chih-ta silver certificates in thirteen denominations from 2 oz. [2,000 cash] to 2 cash.

<sup>79</sup> Pauthier's translation does not make clear that the old notes were exchanged for the new currency.

<sup>80</sup> Pauthier omits the phrase "should be valued at two strings in *Chih-yüan* bills," thereby completely obscuring the fact that it was possible to obtain silver from the treasury, but at an agio of  $2\frac{1}{2}$  per cent. Thus Marco Polo's statements in this connection are definitely confirmed.

大抵至元鈔五倍於中統、至大鈔又五倍於至元。然未及期年、仁宗卽位、以倍數太多、輕重失宜、遂有罷銀鈔之詔。而中統、至元二鈔、終元之世、蓋常行焉。

凡鈔之昏爛者、至元二年、委官就交鈔庫、以新鈔倒換、除工墨三十文；三年、減爲二十文。二十二年、復增如故。

Each ounce was convertible into five strings in Chih-yüan bills, one ounce of white silver, or one-tenth ounce of ruddy gold. The emission of paper currency under the Mongol dynasty had now been altered three times. Roughly speaking, the Chih-yüan bills had five times the value of those of the Chung-t'ung period, and the Chih-ta bills likewise were worth five times more than the Chih-yüan bills. Yet scarcely had a year elapsed when, on the accession of Jên-tsung, because the conversion rate was too high and depreciation excessive, a cessation of issuance of silver certificates was decreed. But the two issues of the Chung-t'ung and Chih-yüan periods continued in common circulation to the close of the Mongol epoch.

With regard to smudged or tattered notes, the second year [1265] of the Chih-yüan period officials were deputed to the bill exchange treasuries to make substitution of fresh bills. They should deduct [as seigneurage] for labor and ink thirty cash. The third year this was reduced to twenty cash, but the twenty-second year [1285] the higher rate was restored.

The final paragraph is omitted by Pauthier.

The author of the *Yüan shih* also gives us some further important information about the amount of bills issued, which I quote herewith in Dr. Gardner's translation.

## QUANTITY OF BILLS ANNUALLY PRINTED

(Appendix to the foregoing section, *Yüan Shih*, ch. 93, ff. 22b<sup>1</sup>-23b<sup>10</sup>)

1260	Chung-t'ung <i>ch'ao</i>	73,352 <i>ting</i>	1279	Chung-t'ung <i>ch'ao</i>	788,320 <i>ting</i>
1261	"	39,139	1280	"	1,135,800 "
1262	"	80,000 "	1281	"	1,094,800 "
1263	"	74,000 "	1282	"	969,444 "
1264	"	89,208 "	1283	"	610,620 "
1265	"	116,208 "	1284	"	629,904 "
1266	"	77,252 "	1285	"	2,043,080 "
1267	"	109,488 "	1286	"	2,181,600 "
1268	"	29,880 "	1287	"	83,200 "
1269	"	22,896 "	Chih-yüan <i>ch'ao</i>	1,001,017 "	
1270	"	96,768 "	1288	"	921,612 "
1271	"	47,000 "	1289	"	1,780,093 "
1272	"	86,256 "	1290	"	500,250 "
1273	"	110,192 "	1291	"	500,000 "
1274	"	247,440 "	1292	"	500,000 "
1275	"	398,194 "	1293	"	260,000 "
1276	"	1,419,665 "	1294	"	193,706 "
1277	"	1,021,645 "			
1278	"	1,023,400 "			20,355,429 <i>ting</i>

Pauthier, in presenting the above list (*Le Livre de Marc Pol*, vol. 1, pp. 321-322), makes three errors. The most serious in amount, and even more from the standpoint of method, is an arbitrary "correction" without warning, of the text recording the issue of notes in 1290. The imperial Ming (*Chien pên* 監本) edition of the twenty-one standard histories, of which the blocks in question (ff. 23-24) are dated from 1602, states the number of bills issued in that year at "five thousand myriads, two hundred fifty" (50,000,250 *ting*), the figure which is faithfully reproduced by the 1739 palace (*tien pan* 殿板) edition of the twenty-four standard histories and all of those which are based upon it. The character "thousand," however, is a simple graphic error for "ten," from which it has been altered by addition of one stroke (千 from 十). The correct reading, which is fortunately now available in the selective (*Po na pên* 百納本) edition of the twenty-four histories (*Yüan Shih*, ch. 93, 24b 7-8) is 五十萬, "fifty myriads," only one per cent of the reading of our modern editions, and one tenth that supposed by Pauthier. It reflects,

not violent inflation, but deflation as compared with the preceding fourteen years.

The other two cases are those of the year 1287, where Pauthier gives 93,200 in place of 83,200, and for 1294, where he has 293,706 instead of 193,706.

The value of the *ting* is ten ounces of silver, but, in view of the repeated depreciation of the notes, and the wide variation in purchasing power of silver between China and the western countries, there is little evident advantage in attempting to establish equivalent value of these emissions in terms of any western currency.

It is clear that the Mongols, following the Chinese custom, had used war notes during the period of the conquest. These are mentioned, but not stressed, by the annalist in the last paragraph on page 317, which clearly refers to the notes circulated *before* Khubilai. The aim in this instance was obviously to draw off from China a considerable amount of the silver which was circulating. This is specifically stated by the author of the *Yüan Shih* in the biography of Yeh-lü Ch'u-ts'ai. At the same time the financial advisers of the emperors fell back upon earlier Chinese experience in the use of paper currency, and advised the emperor to endeavor to keep the notes sufficiently backed with silver to avoid having them depreciate.

The experience with Pauthier's translation of the *Yüan shih* made it seem advisable to check up on the pertinent sections of the biography of Yeh-lü Ch'u-ts'ai, which has been available hitherto to non-sinologists only in Rémusat's translation. Dr. Gardner has kindly done this, and we quote them herewith:

Translations from *Yüan shih*, ch. 146, Biography of Yeh-lü Ch'u-ts'ai 耶律楚材, ff. 4a<sup>1</sup>-b<sup>2</sup>, 6b<sup>5-7</sup>, 7b<sup>1-6</sup>.

[4a1] "Some close advisers [of Ögödaï], Pieh-tieh and others, said to him: 'The Chinese are of no use to the state. We can exterminate all the people to make pasture lands.' Yeh-lü Ch'u-ts'ai rejoined: 'When your Majesty will bring the south into subjection, there must be a source of supplies to meet the needs of your armies. If we make arrangements which are really equitable, within the country itself, from land taxes,

commercial octroi, salt, wine, iron smelting, and the produce of mountain and marsh, we can annually obtain five hundred thousand ounces of silver, eighty thousand bolts of silk, and more than four hundred thousand bushels (*shih*) of grain, sufficient for the commissariat. How can it be said that they are useless?' The Emperor said: 'You try to administer the matter for Us.' Thereupon Yeh-lü Ch'u-ts'ai proposed and established tax collectors in ten circuits, Yen-ching and the others. For all the principal and secondary posts he employed scholars like Ch'ên Shih-k'ô and Chao Fang, all of whom were gentlemen of substantial quality, eminently the pick of the empire. Their advisers and assistants were all drawn from the former personnel of the cabinet and ministries.

[4a8] "In the autumn of the *hsin mou* year [1231] the Emperor came to Yün-chung. The ten circuits all submitted their granary inventories together with gold and silk, which were displayed within the audience hall. The Emperor laughed and said to Yeh-lü Ch'u-ts'ai: 'You do not leave Our side, yet you are able to provide a sufficiency for the needs of the state. Among Our subjects in the Southern Kingdom [China] are there others like yourself?' He replied: 'As for them, all are wiser than I. It is because I am lacking in ability that I am left at Yen [at Peking, when the Chin capital was at K'ai-fêng] to serve your Majesty.' The Emperor liked his modesty, gave him wine, and that very day appointed him Chancellor. All matters, whether great or small, were first made known to him." [4b2]

[6b5] "In response to a proposal in 1236 for issue of paper currency, Yeh-lü Ch'u-ts'ai said: 'The Chin in the time of Chang-tsung [1190-1208] first issued bills (*chiao-ch'ao*) which circulated as equivalent for cash. The authorities used the emission of bills to make profit but refused to redeem them, calling them 'old notes.' It got so that ten thousand strings of cash [in bills] were good only for one cake, the people's strength was worn out, and the resources of the state exhausted. This should be taken as a warning. If bills be printed now, they should not be issued in excess of ten thousand *ting* [each of ten ounces of silver].' His recommendation was adopted." [6b7]

[7b1] “In the *ting-yu* year [1237] Yeh-lü Ch‘u-ts‘ai advised the Emperor: ‘Those who would make utensils must employ good artisans. Those who would preserve the empire must employ educated ministers. The handiwork of an educated minister, failing the lapse of several decades, can hardly with ease be brought to fruition.’ The Emperor responded: ‘If that is so, you can put these men in office.’ Yeh-lü Ch‘u-ts‘ai said: ‘If it please you, we will examine them in competition.’ Thereupon Liu Chung, Examining Commissioner of Hsüan-tê Chou, was ordered to hold examinations in each locality, dividing them into three sections comprising the meaning of the classics, poetry, and essays. Those educated men who had been taken prisoner and made slaves were likewise ordered to take the examination. Their masters who might conceal or fail to release them should be punished with death. The scholars secured totalled four thousand and thirty, while one out of four escaped slavery.” [7b6]

It is quite evident that the intention of the Mongols was to draw off as much income from China as they could. Some of the nomad rulers’ advisers wished to plunder the country and to turn it into pastureland. Yeh-lü Ch‘u-ts‘ai, however, had obviously lived for a long time in China and was familiar with the Chinese methods of doing things, and his advice was taken. It is hard to say whether his activities have been somewhat exaggerated by the dynastic historian.<sup>81</sup> It is pretty clear that the proposal involved a partial reconstruction of the administrative machinery which had become badly disorganized under the later Chin, especially as this procedure gave promise of a substantial and regular income. The same general viewpoint of the Mongol statesman is exemplified in his advice as to the issuance of banknotes, the implication being that the notes of the later Chin were not redeemed.

The principle, accordingly, on which the first notes issued by Khubilai were based is that of a certificate. The product lying at the base of the first issue is silk, which in turn was legally

<sup>81</sup> So BARTHOLD thinks (*12V*, p. 167).

related to silver, though the text of the annals does not seem to be entirely in order. The second issue was apparently based on the string of cash (*kuan*) as a unit which in turn had a direct relation to silver. The third issue, which was printed on silk, was apparently never put into circulation.

The effect of this issuance of certificates, which must have largely increased the amount of money in circulation in the country, was to cause prices to rise; whereupon in 1264 the government established treasuries in each circumscription (*lu*) with a stabilization fund of 100,000 *ting*, through which they endeavored to hold the market prices steady: it would be very interesting to know just what measures were introduced to effect this, but the annals are mute on the point.

Another element in the situation must be taken into account here. Coined silver did not circulate in China, but in uncoined form this metal was widely employed in personal and business transactions. Katō points out that in the novels of the epoch gifts and payments in this medium are mentioned as ordinary and customary transactions. Now we know that silver was exported from China at this period in considerable quantities (see below, p. 328), and the price of the metal in China must have risen correspondingly as against the certificates which represented a given quantity of it. During this period, therefore, we can discern a tendency toward inflation, which becomes obvious during the seventh decade of the thirteenth century, when copper money was being hoarded, and the government had recourse to the issuance of shin-plasters or fractional currency; these raised a storm of complaint among the population and were withdrawn three years later. The quantity of notes emitted reflects the financial embarrassment of the government. From 1276 to 1282 the average annual amount put out was 1,059,713 *ting*. The total amount issued from 1260 to 1275 was only 1,497,335 *ting*, of which 755,826 *ting* fall in the years 1273-75.

In 1287 the local treasuries were again revived, but this time the government sought another end. The authorities were obviously seeking to impound all precious metal in circulation, and issued their notes at double the previous nominal value. Such is

the state of affairs reflected in Marco Polo's account. The annals confirm the statement of Marco Polo that it was possible to exchange notes at the treasuries for noble metal.

(ed. Benedetto, p. 93) Et encore vos di une autre couse que bien fait a dire. Car quant l'en a tenue ceste carte tant qu'ele s'en roupent et que se gastent, et il; e porte a la secque et il sunt cangie a noves et fresches, si voirement qu'il en lase trois pour C. Et encore vos dirai une belle raison que bie[n] fait a conter en notre livre. Car se une homme vult acater or ou argent por faire son vaicelment ou sez centures et sez autres evres, il s'en vait a la secque dou grant sire et porte de celles charte, et les done por paiement de l'or et de l'argent qu'il achate dou seignor de la secque.

Marco's statement, however, implies that certain restrictions were imposed upon this procedure (possibly only jewellers or similar craftsmen were permitted to do this). The annals mention no restrictions of such exchange. Similar arguments may be advanced, it would seem, in favor of Marco's implication and Pegolotti's express statement that bills might be exchanged for silver at the frontier. If the circulation of silver were restricted within the country, it would be natural for merchants to exchange their silver for *balys* there. As they purchased goods in the country, they would only take out a small proportion of the original sum which they brought for their expenses on the homeward trip. From the economic standpoint it is clear that at this period the government was interested in controlling the circulation of silver in the country. By this date the relations with the western Mongol rulers were definitely hostile and the flow of silver westward had been halted. The amount of silver in the country was thus not being depleted by export, but with the inflation the price of silver had gone skyrocketing. The government sought, therefore, to impound the free metal and (with some success, it would appear) to back up the currency floated by a metal reserve.

It could be pointed out, however, that none of the notes surviving from the Mongol period contain on their superscription any specific statement that they are redeemable at the treasury, but merely that they represent a certain amount of cash or silver.

To judge from the general evidence, the establishment of Mongol rule in China was accompanied by a considerable revival of prosperity, especially in the north, which had become badly disorganized under the later Chin emperors, and silver was exported to the western areas in large quantities over a considerable period. Peace and order naturally brought in their train a return of prosperity accompanied by a fall in the prices of goods. If no fixed ratio of exchange between silver and bronze had existed before 1260, the phenomena attendant upon the *Parallelwahrung* would ensue; until such time as a ratio was fixed, the price of silver would then rise and with it the price of products. Inflation within China then supervened.

During the period of the Mongol conquest of China, huge quantities of silver were drawn off to the west. The distributions of money which took place at the *kurultais* give us some indication of the quantities involved.<sup>82</sup> Much of this flowed westward along the caravan routes and reappeared in the west, where it was avidly seized upon by the trading public and put into circulation. Metallurgical evidence confirms the fact that much of the silver coined in the west at this period was of Chinese origin. Chinese silver contains a certain amount of antimony, which gives it a much whiter appearance than the plumbiferous, darker metal of the Levant. The difference was so marked that the new currency minted in the west, both at Trebizond and in Cyprus, was called *white*. The Greek word *aspron* (ἄσπρον: Latin *asper*) 'rough,' distinguishing the new tokens from the worn coins in circulation, obtained the sense of 'white' in modern Greek. So, too, the older Turkish silver coins were called *asıl aqçé* 'white.'<sup>83</sup>

Silver returned to the steppe area, to the Anatolian sector and to those portions of the Moslem east where the Mongols held sway, but the supply of silver in Egypt was obviously short. Simultaneously with this phenomenon the Italian commercial cities of the west begin to coin gold. The Levant had gone over to silver at the time the west went on to the gold standard.

<sup>82</sup> See Sir H. HOWORTH, *History of the Mongols*, 1 (London, 1876), pp. 116-7, 159, 163.

<sup>83</sup> The term *თჳთუთო* *t'et'ri* 'white' is also found in the sense of silver money in mediaeval Georgian texts.